

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,990	04/03/2001	Masahito Yamamoto	35.C15271	9692
5514	7590	08/06/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112				SALL, EL HADJI MALICK
ART UNIT		PAPER NUMBER		
2157				

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/823,990	YAMAMOTO, MASAHIKO	
	<b>Examiner</b>	<b>Art Unit</b>	
	EI Hadji M Sall	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 03 April 2001.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-40 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-40 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

1.

***DETAILED ACTION***

This action is responsive to the application filed on April 3, 2001. Claims 1 - 40 are pending. Claims 1 - 40 represent Service Management apparatus for managing service information for services present in network system and apparatus for instructing service management apparatus.

2.

***Claim Rejections - 35 USC § 102***

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-6, 9, 11-16, 19, 21-26, 29, 31-36 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Saito U.S. 6,563,796.

Saito teaches the invention as claimed including apparatus for quality of service evaluation and traffic measurement (see abstract).

readout register 303. The content of the readout register 303 is read by CPU 215. The object VPI/VCI in the cell info register 302 is deleted).

As to claim 4, Saito teaches a service management apparatus according to claim 2, wherein said evaluation function evaluates the quality based on the time required for calling the service (column 3, lines 20-35, Saito discloses in this case, the estimating section may include means for estimating an arrival time...where said estimated arrival time of said first cell is given by a sum of base time T....).

As to claim 5, Saito teaches a service management apparatus according to claim 2, wherein said evaluation function evaluates the quality based on the frequency of error generated by the service calling (column 19, lines 56-66, Saito discloses...the low layer processing section 4, first performs such tasks as taking out cells from SDH frame and error correction using HEC and sends the cells to the state managing section....).

As to claim 6, Saito teaches a service management apparatus according to claim 1, wherein:

said test means executes an access process for writing and reading data on trial basis for a storage service (column 11, lines 42-54, Saito discloses...the cell count in the cell info register 302...and this result together with the timestamp stored in the cell info register 302 is written to the readout register 303. The content of the readout register 303 is read by CPU 215. The object VPI/VCI in the cell info register 302 is deleted; column 14, lines 40-43, Saito discloses when the packet count reaches...CPU 1021 reads out the time value and the value of the packet length counter, and stores this information in apparatus memory 1022).

said evaluation means evaluates the quality of said storage service bases on the result of said access process (column 14, lines 43-49, Saito discloses when M timer values are obtained, CPU 1021 calculates average packet arrival interval A, standard deviation S for packet arrival intervals, average packet length LA....).

As to claim 1, Saito teaches a service management apparatus for use in a network system capable of providing various services dispersed in plural apparatuses, for managing the service information on the various services present on said network system and transferring the managed service information in response to a request from an external apparatus, the service management apparatus comprising:

test means for executing a process of trial use of the service (column 15, lines 66-67, Saito discloses in the quality evaluation...; column 16, lines 1-11, Saito discloses...analyses are performed by near real-time simulation, not be numerical equations, so that the analytical precision is high)

evaluation means for evaluating the quality of said service, based on the result of the trial use of the service (column 11, lines 16-23, Saito discloses a QoS evaluation apparatus of the second embodiment is similar to the apparatus in the first embodiment and is related to evaluating the quality (cell loss caused by buffer overflow and the like) of the network...);

renewal means for renewing the managed service information based on the evaluated quality renewal means for renewing the managed service information based on the evaluated quality (column 11, lines 24-27, ...the requirement for renewal of timestamp and busy bit for every cell in the first embodiment is now carried out for every packet in the second embodiment).

As to claim 2, Saito teaches a service management apparatus according to claim 1, wherein said evaluation means evaluates the result of trial use of the service by a predetermined evaluation function (see abstract, Saito discloses...the estimated arrival times at the attention point, produced by the arrival time estimation section, according to a predetermined logic equation).

As to claim 3, Saito teaches a service management apparatus according to claim 2, wherein said renewal means deletes the managed service information in case the evaluation by said evaluation function does not meet a predetermined reference (column 11, lines 48-54, Saito discloses...the cell info register 302 is written to the

As to claim 9, Saito teaches a service management apparatus for use in a network system capable of providing various services dispersed in plural apparatuses, for managing the service information on the various services present on said network system and transferring the managed service information in response to a request from an external apparatus, the service management apparatus comprising:

test means for executing a process of trial use of the service (column 15, lines 66-67, Saito discloses in the quality evaluation...; column 16, lines 1-11, Saito discloses...analyses are performed by near real-time simulation, not be numerical equations, so that the analytical precision is high)

evaluation means for evaluating the quality of said service, based on the result of the trial use of the service (column 11, lines 16-23, Saito discloses a QoS evaluation apparatus of the second embodiment is similar to the apparatus in the first embodiment and is related to evaluating the quality (cell loss caused by buffer overflow and the like) of the network...);

deletion means for instructing, in case the evaluated quality does no meet a predetermined reference, said service management apparatus to delete the service information from said service management apparatus (column 7, lines 3-10, Saito discloses...In the cell arrival detection section 123, payload of the arrived cells are removed, cells are timestamped and are sent to the last cell detection section 214).

Claims 11-16, 19, 21-26, 29, 31-36 and 39 do not teach or define any new limitations above claims 1-6, and 9, and therefore are rejected for similar reasons.

#### **4. *Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 17, 27 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito U.S. 6,563,796 in view of Kondylis et al. U.S. 6,621,805.

Saito teaches the invention substantially as claimed including apparatus for quality of service evaluation and traffic measurement (see abstract).

As to claim 7, Saito teaches a service management apparatus according to claim 1.

Saito fails to teach said evaluation means detects the number of colors or recording sheets available in the service and evaluates the quality based on the number of colors or recording sheets available in the service.

However, Kondylis teaches method and apparatus for multicasting real-time variable bit-rate traffic in wireless ad-hoc network. Kondylis teaches said evaluation means detects the number of colors or recording sheets available in the service and evaluates the quality based on the number of colors or recording sheets available in the service (see abstract; column 12, lines 11-12, Kondylis discloses  $RC_{ds}$  represents the desired number of receive colors, as estimated by the node based on the current traffic load).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Saito in view of Kondylis to introduce evaluation means detects the number of colors available in the service and to evaluate the quality based on the number of colors available in the service. One would be motivated to do so to prevent packet collisions (see abstract).

Claims 17, 27 and 37 do not teach or define any new limitations above claim 7, and therefore are rejected for similar reasons.

6. Claims 8, 18, 28 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito U.S. 6,563,796.

Saito teaches the invention substantially as claimed including apparatus for quality of service evaluation and traffic measurement (see abstract).

As to claim 8, Saito teaches a service management apparatus according to claim 1.

Saito fails to teach the plural apparatus include a printer.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Saito in order to include a printer in the input/output control section of figure 1. One would be motivated to do so to allow the QoS evaluation apparatus to print out the monitored and evaluated QoS.

Claims 18, 28 and 38 do not teach or define any new limitations above claims 1-6, and 9, and therefore are rejected for similar reasons.

7. Claims 10, 20, 30 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito U.S. 6,563,796 in view of Hamada et al. U.S. 5,581,544.

Saito teaches the invention substantially as claimed including apparatus for quality of service evaluation and traffic measurement (see abstract).

As to claim 10, Saito teaches a service management apparatus for use in a network system capable of providing various services dispersed in plural apparatuses, for managing the service information on the various services present on said network system and transferring the managed service information in response to a request from an external apparatus, the service management apparatus comprising:

test means for executing a process of trial use of the service (column 15, lines 66-67, Saito discloses in the quality evaluation...; column 16, lines 1-11, Saito

discloses...analyses are performed by near real-time simulation, not be numerical equations, so that the analytical precision is high)

evaluation means for evaluating the quality of said service, based on the result of the trial use of the service (column 11, lines 16-23, Saito discloses a QoS evaluation apparatus of the second embodiment is similar to the apparatus in the first embodiment and is related to evaluating the quality (cell loss caused by buffer overflow and the like) of the network...);

Saito fails to teach substitution means for instructing, in case the evaluated quality does not meet a predetermined reference, said service management apparatus to substitute the service provided by said another apparatus with a service provided by said apparatus.

However, Hamada teaches method and apparatus for evaluating QoS in ATM multiplexing apparatus in which priority control is performed and for controlling call admissions and optimizing priority control on the basis of the evaluation. Hamada teaches substitution means for instructing, in case the evaluated quality does not meet a predetermined reference, said service management apparatus to substitute the service provided by said another apparatus with a service provided by said apparatus (column 12, lines 7-16, Hamada discloses...Initial value  $dL_0$  is substituted for the amount of change  $dL$ ...new buffer amount...are calculated. For class m for which the buffer amount is to be reduced, the QoS is evaluated using the new buffer amount...).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Saito in view of Hamada to provide substitution means for instructing, in case the evaluated quality does not meet a predetermined reference, said service management apparatus to substitute the service provided by said another apparatus with a service provided by said apparatus. One would be motivated to do so in order to solve a state equation using the matrix  $S_t$ .

Claims 20, 30 and 40 do not teach or define any new limitations above claims 10, and therefore are rejected for similar reasons.

**8. Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to El Hadji M Sall whose telephone number is 703-306-4153. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 703 308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

El Hadji Sall  
Patent Examiner  
Art Unit: 2157



SALEH NAJJAR  
PRIMARY EXAMINER

